

**WHAT IS CLAIMED IS:**

1           20     A support for use in detecting the presence of a target nucleic acid  
2     comprising an optically smooth, flat light-reflecting surface, said surface having a  
3     nucleic acid complementary to said target nucleic acid bound thereto.

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5           21     The support according to claim 20 wherein said nucleic acid bound to  
6     said surface is bound by covalent bonding.

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8           22     The support according to claim 20 comprises silicon or glass.

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10          23     The support according to claim 20, wherein said light reflecting  
11     surface comprises a layer of aluminum or silicon.

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13          24     The support according to claim 23, wherein said layer of aluminum or  
14     silicon is a layer of a compound selected from the group consisting of silicon dioxide,  
15     silicon monoxide, and aluminum oxide.

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17          25     The support according to claim 24, wherein said support further  
18     comprises an anti-reflection layer.

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20          26     The support according to claim 20, wherein said nucleic acid bound to  
21     said surface is indirectly bound through an intermediate molecule bound to said  
22     surface.

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24          27     The support according to any one of claims 20-26, wherein said  
25     support further comprises said target nucleic acid bound to said complementary  
26     nucleic acid, wherein reflectance from said light-reflecting surface is altered in  
27     comparison to reflectance by said light-reflecting surface in the absence of said bound  
28     target nucleic acid.

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